

REMARKS

The Examiner has rejected claims 48-89 under 35 U.S.C. § 112, second paragraph, as being indefinite to point out the subject matter. Claims 48-89 are rejected under § 103(a) as being unpatentable over Farzin-Nia et al. U.S. Patent No. 6,149,501 in view of Packer et al. U.S. Patent No. 6,158,304. Claims 48-56 and 62-65 are provisionally rejected on the ground of non-statutory obviousness-type double patenting as being unpatentable over claims 1-30 of copending U.S. Patent Application No. 11/216,890 (hereinafter '890). Claims 57-61 and 66-89 are provisionally rejected on the ground of non-statutory obviousness-type double patenting as being unpatentable over claims 1-30 of copending Application No. '890 in view of Farzin-Nia et al. U.S. Patent No. 6,149,501.

Applicant has amended the Abstract to delete the embodiment claimed in the parent application, but not being claimed in the present divisional application, such that the abstract now meets the length requirement. The first paragraph of the specification is also amended as required.

With respect to the rejection under § 112, second paragraph, Applicants have amended the claims to provide antecedent basis for "the diameter" and to distinguish between the starting material and the material of the recast layer. In view of these amendments, Applicants respectfully request that the rejection under § 112 be withdrawn.

Applicants respectfully traverse the rejection of claims 48-89 under § 103 over Farzin-Nia et al. in view of Packer et al. The Examiner asserts that Farzin-Nia et al. teach forming a plurality of flutes having a non-directional surface finish. To the contrary, Farzin-Nia et al. disclose the use of conventional grinding techniques, which as stated at page 6, lines 6-8 in the present specification, conventional grinding techniques produce a directional surface finish that may be the cause of early material failure. Packer et al. disclose forming a groove in the leading edge adjacent the flutes, then filling the grooves with a hard material, in particular polycrystalline diamond or polycrystalline cubic boron nitride, and sintering the hard material in the grooves. The cutting edges are then formed by grinding, EDM or EDG of the hard material after the sintering process is complete. Therefore, Packer et al. do not teach or suggest a recast

layer that is formed by redeposition of the starting material of the instrument blank. Rather, Packer et al. disclose that a different and harder material than that of the instrument blank must be bonded by compaction and sintering to the instrument blank made of the starting material, which different and harder material is then machined to form cutting edges. The present invention forms the hard cutting edges from the starting material itself. Packer et al. do not teach or suggest that removed starting material of the instrument blank can be recast onto the machined instrument blank to form the hard cutting edges by using an EDM or EDG technique. Therefore, there is no *prima facie* case of obviousness, and Applicants respectfully request that the rejection be withdrawn.

With respect to the provisional rejections for nonstatutory obviousness-type double patenting, no response is made herein in view of the rejections being provisional.

In view of the foregoing amendments to the claims and remarks given herein, Applicants respectfully believe this case is in condition for allowance and respectfully request allowance of the pending claims. If the Examiner believes any detailed language of the claims requires further discussion, the Examiner is respectfully asked to telephone the undersigned attorney so that the matter may be promptly resolved. The Examiner's prompt attention to this matter is appreciated.

Applicants are of the opinion that no additional fee is due as a result of this Amendment. If any charges or credits are necessary to complete this communication, please apply them to Deposit Account No. 23-3000.

Respectfully submitted,
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